In the Claims

1. (Currently amended) A method permitting compact ways to update fuzzy relationships between entities in an audiovideo sequence, or serial set of sequences, the method comprising:

writing a description ~~between the entities, the description~~ containing relations corresponding to relationships between the entities in the audiovideo sequence;
determining the relations ~~that may be~~ for represent~~ed~~ation by parameters to define the fuzzy relationships, each parameter having ~~a~~ numerical value_s_ representing confidence in the corresponding fuzzy relationship; and
obtaining from the user, one or more of the following:

(a) ~~the~~ a numerical value for each parameter;

(b) a description of the parameter containing ~~the~~ a numerical value; and

(c) a description capable of setting the parameter dynamically.

2. (Currently amended) The method of claim 1 further comprising

combining an MPEG7 State DS (description scheme) with an additional field in an MPEG7 GraphType DS.

3. (Cancelled)

4. (Currently amended) The method of claim 1 further comprising

running, by a user, a query based on membership of an entity in one of the relations.

5. (Currently amended) A computer-readable medium having executable instructions to cause a computer to perform a method comprising:

writing a description ~~between entities in an audio-visual sequence, the description~~ containing relations corresponding to relationships between entities in an audio visual sequence;

determining the relations for representation by parameters to define fuzzy relationships, each parameter having a~~-~~numerical values representing confidence in the corresponding fuzzy relationship; and

> obtaining for each parameter at least one of
>
>> ~~the~~-a numerical value,
>>
>> a description of the parameter containing ~~the~~-a numerical value, and
>>
>> a description capable of setting the parameter dynamically.

6. (Currently amended) The computer-readable medium of claim 5, wherein the method further comprises:

> combining an MPEG7 State DS (description scheme) with an additional field in an MPEG7 GraphType DS.

7. (Cancelled)

8. (Currently amended) The computer-readable medium of claim 5, wherein the method further comprises:

> performing a query based on membership of an entity in one of the relations.

9. (Currently amended) A method of weighting a fuzzy relation between description schemes in a content description for a multimedia sequence comprising:

> ~~dynamically~~ deriving a confidence value for the fuzzy relation from a parameter associated with one of the description schemes, the confidence value representing a degree to which the fuzzy relation is a member of a subset of relations among the description schemes.

10. (Previously presented) The method of claim 9, wherein the parameter is an attribute value.

11. (Currently amended) The method of claim 9, wherein the confidence value is further ~~dynamically~~ derived from a set of parameters associated with the description schemes.

12. (Previously presented) The method of claim 9 further comprising:

    modifying the confidence value in response to changes in the parameter as the multimedia sequence progresses.

13. (Previously presented) The method of claim 9, wherein the description schemes represent entities in the multimedia sequence, the fuzzy relation represents a relationship between the entities, and the confidence value represents a state of the relationship.

14. (Previously presented) The method of claim 13, wherein the state of the relationship is described by a state description scheme that specifies the parameter.

15. (Previously presented) The method of claim 9 further comprising:

    associating the description schemes with a set of vertices in a graph and the subset of relations with a set of edges among the set of vertices; and

    calculating the confidence value of the fuzzy relation using a membership function based on graph mapping.

16. (Previously presented) The method of claim 15, wherein the membership function is $m_R(x) = g \circ f(x)$, where R is the set of edges over the set of vertices $A \times B$, g defines a function for the parameter over a parameter space PS, and f is a parameterization function $f: A \times B \rightarrow PS, g : PS$.

17. (Previously presented) The method of claim 15 further comprising:

    writing the graph without the edge representing the fuzzy relation if the confidence value is zero.

18. (Currently amended)A computer-readable medium having executable instruction to cause a computer to perform a method comprising:

    ~~dynamically~~ deriving a confidence value for a fuzzy relation between description schemes from a parameter associated with one of the description schemes, the confidence

value representing a degree to which the fuzzy relation is a member of a subset of relations among the description schemes in a content description for a multimedia sequence.

19. (Previously presented) The computer-readable medium of claim 18, wherein the parameter is an attribute value.

20. (Currently amended) The computer-readable medium of claim 18, wherein the confidence value is further ~~dynamically~~ derived from a set of parameters associated with the description schemes.

21. (Previously presented) The computer-readable medium of claim 18, wherein the method further comprises:

modifying the confidence value in response to changes in the parameter as the multimedia sequence progresses.

22. (Previously presented) The computer-readable medium of claim 18, wherein the description schemes represent entities in the multimedia sequence, the fuzzy relation represents a relationship between the entities, and the confidence value represents a state of the relationship.

23. (Previously presented) The computer-readable medium of claim 22, wherein the state of the relationship is described by a state description scheme that specifies the parameter.

24. (Previously presented) The computer-readable medium of claim 18, wherein the method further comprises:

associating the description schemes with a set of vertices in a graph and the subset of relations with a set of edges among the set of vertices; and

calculating the confidence value of the fuzzy relation using a membership function based on graph mapping.

25. (Previously presented) The computer-readable medium of claim 24, wherein the membership function is $m_R(x) = g \circ f(x)$, where R is the set of edges over the set of vertices $A \times B$, g defines a function for the parameter over a parameter space PS, and f is a parameterization function $f : A \times B \rightarrow PS$, $g : PS$.

26. (Previously presented) The computer-readable medium of claim 24, wherein the method further comprises:

writing the graph without the edge representing the fuzzy relation if the confidence value is zero.